

Patent Applicant

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SPECIFICATION OF THE INVENTION

**CLEAN PROCESS OF PROCESSES FOR MANUFACTURING
NON CARCINOGENOUS ZERO POLLUTING ECO FUELS FROM
GAS HYDRATES NOT EXHAUSTING EVEN CO₂ TO PREVENT
EQUALLY THE MENACING GREEN HOUSE EFFECT**

ABSTRACT

This invention is for a process of processes for manufacturing of a plurality of novel ecological fuels designed for any and special transportation vehicles; for industrial and heating purposes, aiming total solution of the air pollution problem through full elimination from them the carcinogens, the smoke and the gases causing the Green House Effect.

The solution of this hard problem count on complete elimination from the fuels of all cyclic hydrocarbons and all antiknocks by introducing new clean fuels some of which are also antiknocks. They are best produced from GAS HYDRATES and from the special FUEL ALLOYS of this inventor, and from other materials. To make them economically feasible they rely entirely on the BEZENTROPIC TECHNOLOGY, of this inventor. Only that way they can become inexpensive since the process consumes a lot of electricity which can be produced enough inexpensively only by the BEZENTROPIC POWER PLANTS. That is why this invention represents a PROCESS OF PROCESSES for ECO FUELS.

The herein disclosed and claimed related NEW TECHNOLOGIES of the inventor, designed for manufacturing of said plurality of eco fuels evidently relays on inventor's BEZENTROPIC THERMODYNAMICS them self being based on the UNIVERSAL LAW OF BEZENTROPY discovered again by him, who is retired graduated physicist, geophysicist and industrial chemist. Part of said new eco fuels are ACETAL FUELS not requiring any design changes upon the existing cars in order to be used by them; the rest are special SAFETY HYDROGEN-NITROGEN BLENDS designed for chemical synthesis, for hydrogen powered vehicles, for power plants, for chemical synthesis and for home heating.

Such inexpensive safety hydrogen has the potential to revolutionize the entire INFRA STRUCTURE of the industrial chemistry, of the vehicle manufacturing, of the entire eco technology and ecology, for better future of all humans

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To some degree this invention is a continuation, in part, of inventor's previous American Patents: No 4,110,082 titled REFORMED HYDROCARBONS AND ALCOHOLS FROM FUEL ALLOYS AND REFORMING AGENTS; No 4,107,282 titled ACETYLENE CATALYST AND PROCESS FOR PRODUCING HYDROGEN and No 4,519,206 titled MULTI-FUELS ROTARY POWER PLANTS, USING GAS PISTONS, ELLIPTIC COMPRESSORS, INTERNALLY COOLED THERMODYNAMIC CYCLES AND SLURRY TYPE COLLOIDAL FUEL FROM COAL AND CHARCOAL

The objects of the invention

The main object of the invention is my novel PROCESS OF PROCESSES for manufacturing ecological fuels, named ECO-FUELS, useable for cars, industrial and heating purposes; produced mainly from the intermediary natural gas from GAS HYDRATES and the FUEL ALLOYS of this inventor. The purpose of these fuels is: ZERO CARCINOGENS, ZERO POLLUTION and ELIMINATION, FOREVER, of the GREEN HOUSE EFFECT menacing the entire world. All following objects of the invention are subordinated to this NOBLE TASK, needing the disclosed special, but not expensive chemical equipment, and an unique unit for electrical mining of the Gas Hydrates.

The next important object of the invention is its indispensable *BEZENTROPIC POWER PLANT*, with a *BEZENTROPIC COOLING and HEATING annex*, plus supplemental devices of the *BEZENTROPIC THERMODYNAMICS*, prompting together the *ECONOMICAL FEASIBILITY* of the claimed Process of Processes for producing the eco fuels, through the natural gas obtained by the *ELECTRICAL MINING* of Gas Hydrates, thanks to the inexpensive electricity.

A third but, not less important object of the invention is the indispensable electric geophysical prospecting and mining of the Gas Hydrates. The GAS HYDRATES are solid CLATHRATE chemical compounds of the water with the natural gas, existing only at temperatures of below 12°C and pressure of 30, more or less atmospheres, depending on the temperature. Such conditions exists only in deep seas and oceans, in the permafrost of Siberia and similar places. The bounding of the elements in the clathrate compounds is not valence bounding but physical bonding of inclusion and adhesion. Because of that the Gas Hydrates are not stable compounds and when they are brought near the surface of the sea they self decompose liberating the contained natural gas. The big problem with the gas hydrates therefore is not the separation of the contained in them natural gas but, the needed geophysical prospecting, mapping and mining for they exist at deep waters. The quest for gas hydrates started relatively recently and short of this invention there are no efficient methods for deep water geophysical prospecting, mapping and mining of gas hydrates. Because of that the only present production of natural gas from gas hydrates is

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in the Siberian permafrost, near lake Baikal, where are used classic methods of mining the permafrost. in that respect the claimed by this inventor electrical prospecting, mapping and mining of gas hydrates is both original and unique.

A fourth object of the invention is the fabrication of ACETALS type ECO- FUELS from gas hydrates and Fuel alloys.

A fifth object of the invention is more ecological fabrication of fuel alloys through the inexpensive electricity of the Bezentropic Power plant.

A sixth object is to change the infra structure of the industrial chemistry and that of the Power Plants.

Other objects of the invention would become apparent for those skilled in the art.

In the accompanied drawings

Fig. 1(a) represents the CHEMICAL PLANT of the invention

Fig. 2 represents a Bezentropic cycle for direct heat to potential energy conversion. *06-06-03 Van der*

Fig. 3(a) represents a CRIOGENIC BEZENTROPIC POWER PLANT using the cycle of Fig. 2

Fig. 3(b) is the thirsty bird.

Fig. 4(a) is the NOZZLE OF LAVAL, based on the first and the second BERNOULLI.

Fig. 4(b) is flat nozzle based on same laws of Bernoulli; more suitable for this invention.

Fig. 4(c) is a VARIABLE FLAT NOZZLE more suitable for this invention.

Fig. 5(a,b) displays the BEZENTROPIC ROTORS of the invention.

Fig. 6(a) displays the basic BEZENTROPIC TURBINE of the invention.

Fig. 6(b, c) are the bezentropic cycles of the turbine.

Fig. 7(a,b,c) is a block diagram of cryogenic turbine.

Fig. 7(b) is the same elliptic bezentropic compressor as that of Fig 8(b)

Fig. 7(c) represents the details of the bezentropic VORTEX TUBE.

Fig. 8(a,b,c) displays the discovered ROTARY CENTERS OF THE ELLIPSE and how to practically use them.

Fig. 8(d) displays how to use the rotary centers of the ellipse to make a rotary engine.

Fig. 8(e) displays the working diagram of the elliptic engine.

Fig. 9 displays bezentropic VORTEX PROPULSION.

Fig. 10(a) displays vortex vacuum distillation.

Fig. 10(b) displays vortex ionic propulsion system

Fig. 11 displays super conducting transformer for extracting electricity from the Brownian movement of the electrons.

Fig. 12 is modified device for using the brownian movements of the electrons without superconductors.

Fig. 13 is the synchronizing device of the bezentropic turbines.

Fig. 1(b) is the apparatus of Max Plank

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